



MontCAS Criterion-Referenced Test (CRT) Student Report 2011

Letter from Superintendent

Dear Parents/Guardians:

The Montana Comprehensive Assessment System (MontCAS) Criterion-Referenced Test (CRT) is the state's measure of student performance on the state content standards which establish goals for what all students should know and be able to do.

The CRT assesses Reading and Math at grades 3-8 and 10. Students in grades 4, 8, and 10 are also assessed in Science. The assessment contains multiple-choice questions, math short answer questions, and constructed response items. The constructed response items give students the opportunity to explain answers and solve problems using multiple strategies.

This report shows how your student performed on the March 2011 CRT. The results of this standards-based assessment are reported in four performance levels: Advanced, Proficient, Nearing Proficiency, and Novice. While some students may not yet meet the standards, keep in mind that the standards are rigorous and challenging. Our long term goal is for all students to achieve these high standards so that Montana youth will be among the best educated in the world. The staff at your school will be able to provide further information about your student's performance on the CRT.

The CRT is only one measure of student performance and should be viewed in the context of the student's local programs and other measures. The CRT is required by the No Child Left Behind Act and is part of an ongoing statewide educational improvement process. I encourage you to contact your student's school to begin a conversation that will support your student's success.

Sincerely,

Denise Juneau
Montana Superintendent of Public Instruction
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What can you do to help your student?

It is important to support your student in his or her studies now and throughout his or her future education.

Here are some tips for supporting your student in the completion of his or her schoolwork:

- Have regular discussions with your student's teacher(s) to see what you can do at home to support your student's work in school, such as making sure homework is done.
- Discuss with your student the subjects in which he or she needs improvement. Talk about whether there has been a noticeable improvement. If not, find out why.
- Ask your student to explain what he or she is studying. These conversations help you to follow your student's progress and help your student to remember what he or she has learned.
- Make sure your student gets enough rest, eats properly, and arrives at school on time every day. Send your student to school prepared to learn

What is the MontCAS Criterion-Referenced Test (CRT)?

The Montana Comprehensive Assessment System (MontCAS) was developed in accordance with the following federal laws: Title 1 of the Elementary and Secondary Education Act (ESEA) of 1994, P. L. 103-382, and the No Child Left Behind Act (NCLB) of 2001.

The CRT test questions are based on, and aligned to, Montana's content standards, benchmarks, and grade-level expectations in Mathematics, Reading, and Science. Montana educators worked with the Montana Office of Public Instruction and Measured Progress to develop test questions that assess how well students have met Montana grade-level expectations for each

MontCAS CRT scores are intended to be useful indicators of the extent to which students have mastered the materials outlined in the Montana Mathematics, Reading, and Science content standards, benchmarks, and grade-level expectations.

Who must take the CRT?

All classroom students in grades 3-8 and 10 enrolled for 180 hours or more in an accredited public or private Montana school are required to participate.

What subjects were tested in spring 2011?

Mathematics	Grades 3-8 and 10
Reading	Grades 3-8 and 10
Science	Grades 4, 8, and 10

What types of test questions are on the CRT?

- Multiple-choice questions: Students choose the correct answer from four options and receive one point for each correct answer and zero points for an incorrect answer.
- Constructed-response questions: Depending on the subject tested, students are asked to explain and/or make a chart, table, diagram, illustration, or graph to support their answer. Each answer receives zero to four points.
- Short-answer questions (Mathematics tests only): Students give a brief response, which is usually a number or short statement. Students receive one point for a correct answer and zero points for an incorrect answer.

How are the CRT results used?

MontCAS CRT test results are used for the following purposes:

- to assist educators in planning improvements to curriculum and instruction
- to determine whether schools are helping their students meet the state content standards

Where can you find more information?

Where can you find more information:
<https://data.opi.mt.gov/opireportingcenter>

Montana requirements for the participation of students with disabilities on the CRT:
http://www.opi.mt.gov/Curriculum/MontCAS/#p7GPd_7

OPI contact: Judy Snow, State Assessment
Director, 406-444-3656,
jsnow@mt.gov

Your student's performance level and score in each content area

Display of scores and probable range of scores

In the figure below your student's performance is displayed. For each subject, the left column lists the possible performance levels with the scores needed to achieve those levels. The center column is your student's performance where the black bar is their score and the small grey bar is the range of scores they might have achieved had they taken the test multiple times. The right hand column is the percentage of students that achieved each performance level on the CRT across the state.

Example: Your child's score → 240
← Range of likely scores if your child took the test many times

Mathematics			Reading			Science		
Performance Levels	Student	State percentage	Performance Levels	Student	State percentage	Performance Levels	Student	State percentage
Advanced 281-300	298	25%	Advanced 289-300	281	49%	Advanced 270-300		20%
Proficient 250-280		34%	Proficient 250-288		34%	Proficient 250-269	257	27%
Nearing Proficiency 225-249		30%	Nearing Proficiency 225-249		9%	Nearing Proficiency 225-249		33%
Novice 200-224		11%	Novice 200-224		8%	Novice 200-224		20%

Your student's Mathematics Scaled Score is **298** which is at the **Advanced Level**. Your student's possible range of scores is from 290 to 300.

Students at this level demonstrate a comprehensive and in-depth understanding of rigorous subject matter and are able to:

- Write a linear equation with a slope other than one or zero, given a table of values, a graph, or a description in words.
- Solve an equation in one variable that requires more than two steps.
- Write an equation involving trigonometric ratios to solve real-world problems.
- Identify the relevant theorem that justifies the congruence of two given triangles.
- Sort quadrilaterals on and off the coordinate plane by properties involving angles, sides, or diagonals.
- Identify a geometric shape that provides a counterexample to a given statement.
- Apply the Pythagorean Theorem to solve a problem that requires multiple steps.
- Calculate the area of a composite figure.
- Determine the number of unique combinations, given a set of objects.
- Calculate the probability of a desired outcome, given the probabilities of all other possible outcomes.
- Display data in a circle graph.

Your student's Reading Scaled Score is **281** which is at the **Proficient Level**. Your student's possible range of scores is from 271 to 291.

Students at this level demonstrate a solid understanding of challenging subject matter and solve a wide variety of problems. Using grade-level text, the student is able to:

- Use a substantial reading and content vocabulary.
- Apply complex thinking skills: make and revise predictions, explain inferences, analyze causal relationships, and formulate arguments with supporting evidence.
- Usually paraphrase accurately.
- Use a variety of strategies to interpret language, literary characteristics, overall intent.
- Analyze the author's use of literary devices.
- Set, monitor progress toward, and meet reading goals.

Your student's Science Scaled Score is **257** which is at the **Proficient Level**. Your student's possible range of scores is from 249 to 265.

Students at this level demonstrate a solid understanding of challenging subject matter and are able to:

- Generate testable questions, safely construct a plan for a controlled investigation, make logical inferences based on observations, accurately interpret data by identifying the strengths and weaknesses in an investigation design, communicate results, and describe and explain that observation is a key inquiry process used by Montana American Indians.
- Use physical, mental, theoretical, and mathematical models to investigate individually generated problems and/or questions about physical and chemical phenomena.
- Organize, classify, and describe interactions of the biotic (living) and abiotic (non-living) parts of the biosphere as well as the natural history of interactions of life on Earth, and use these skills to solve related novel (to the student) problems.
- Describe, explain, and model the processes that occur in the lithosphere, hydrosphere, and atmosphere of the Earth and the universe.
- Analyze and communicate connections and interactions among technology, science, and society by applying scientific inquiry.
- Identify the positive and negative impacts of past, present, and future technological and scientific advances; with direction, give possible solutions that may minimize the negative impacts on the global community; and describe and explain how science and technology apply to contemporary Montana American Indian communities.
- Analyze and explain Montana American Indian contributions and their historical impact on scientific and technological knowledge.

Scores on Montana Content Standards

CRT results are reported for Montana Content Standards in Mathematics, Reading, and Science to provide standard-specific information about the student's achievement. The results can be used to show the student's relative performance on the standards within a content area.

Mathematics	Total Possible Points	Points Earned by Your Student	Range of Points Earned by Students Who Have Achieved Proficiency in the State
1. Problem Solving	This standard is assessed within the frameworks of standard 2-7.		
2. Numbers and Operations	13	9	0-12
3. Algebra	11	4	1-11
4. Geometry	13	10	0-12
5. Measurement	8	7	0-8
6. Data Analysis, Statistics, and Probability	13	12	1-12
7. Patterns, Relations, and Functions	8	7	0-8
Reading	Total Possible Points	Points Earned by Your Student	Range of Points Earned by Students Who Have Achieved Proficiency in the State
1. Students construct meaning as they comprehend, interpret, and respond to what they read.	17	10	3-16
2. Students apply a range of skills and strategies to read.	18	14	4-17
3. Students set goals, monitor, and evaluate their reading progress.	This standard is not measurable in a statewide assessment.		
4. Students select, read, and respond to print and nonprint material for a variety of purposes.	15	12	5-15
5. Students gather, analyze, synthesize, and evaluate information from a variety of sources, and communicate their findings in ways appropriate for their purposes and audiences.	10	6	0-10
Science	Total Possible Points	Points Earned by Your Student	Range of Points Earned by Students Who Have Achieved Proficiency in the State
1. Scientific Investigations	14	6	5-14
2. Physical Science	14	11	2-14
3. Life Science	14	11	3-14
4. Earth/Space Science	14	10	5-14
5. Impact on Society	Subscores are not reported for this standard.		
6. Historical Development	Subscores are not reported for this standard.		